

APPENDIX B
PENDING CLAIMS

- 1 1. (Twice amended) A mutant antibody comprising a reactive site not present in
2 the wild-type of said antibody and six complementarity determining regions (CDRs) that recognize a
3 metal chelate or portions thereof, wherein said reactive site is in a position proximate to or within
4 said complementarity-determining regions,
5 wherein said reactive site is the mutation and,
6 wherein said reactive site interacts with a reactive group selected from carboxyl
7 groups, hydroxyl groups, haloalkyl groups, dienophile groups, aldehyde groups, ketone groups,
8 sulfonyl halide groups, thiol groups, amine groups, sulfhydryl groups, alkene groups, and epoxide
9 groups.
- 1 2. The mutant antibody according to claim 1, wherein said reactive site is a side-
2 chain of a naturally occurring or non-naturally occurring amino acid.
- 1 3. The mutant antibody according to claim 2, wherein said reactive site is the
2 -SH group of cysteine.
- 1 10. (Once amended) A polypeptide comprising a peptide sequence according to
2 SEQ. ID NO.:5 (**FIG. 12**).
- 1 11. A polypeptide comprising a peptide sequence according to SEQ. ID NO.: 7
2 (**FIG. 14**).
- 1 14. (Twice amended) The mutant antibody according to claim 1, wherein said
2 mutant antibody is a mutant of the antibody deposited as ATCC Deposit No. PTA-4696.
- 1 15. The mutant antibody according to claim 14, wherein serine-95 of the light-
2 chain is substituted by a cysteine residue.
- 1 16. The mutant antibody according to claim 1, wherein said antibody is a
2 bifunctional antibody further comprising a second complementarity-determining region that
3 specifically binds to a cell-surface antigen.
- 1 17. The mutant antibody according to claim 1, further comprising a targeting
2 moiety covalently attached thereto.

1 **18.** The mutant antibody according to claim 17, having the structure:

2 Ab-L-T

3 wherein,

4 Ab represents said antibody;

5 L is a chemical bond or linking group; and

6 T is said targeting moiety.

1 **19.** The mutant antibody according to claim 17, wherein said targeting moiety is
2 an antibody that binds specifically to a cell surface antigen.

1 **20.** The mutant antibody according to claim 1, further comprising said metal
2 chelate bound to said complementarity-determining region, wherein said chelate comprises a
3 reactive functional group of complementary reactivity to said reactive site of said antibody.

1 **21.** (Once amended) The mutant antibody according to claim 20, further
2 comprising a covalent bond formed by reaction of said reactive site of said antibody and said
3 reactive functional group of said chelate.

1 **22.** (Once amended) The mutant antibody according to claim 20, wherein said
2 reactive group of said chelate is an acrylamido moiety.

1 **23.** The mutant antibody according to claim 1, wherein said metal chelate is a
2 polyaminocarboxylate chelate of a metal ion selected from the group consisting of transition metal
3 ions and lanthanide ions.

1 **24.** A pharmaceutical composition comprising the mutant antibody according to
2 claim 17, and a pharmaceutically acceptable carrier.

1 **25.** (Twice amended) A mutant antibody comprising a cysteine residue not
2 present in the wild-type of said antibody and six complementarity determining regions (CDRs) that
3 recognize a metal chelate or portions thereof, wherein said cysteine is in a position proximate to or
4 within said complementarity-determining regions, wherein said cysteine residue is the mutation.

1 **34.** The mutant antibody according to claim 25, further comprising said metal
2 chelate bound to said complementarity-determining region, wherein said chelate comprises a
3 reactive functional group of complementary reactivity to the –SH side-chain of said cysteine
4 residue.

1 **35.** The mutant antibody according to claim 34, further comprising a covalent
2 bond formed by reaction of the –SH side-chain of cysteine and said reactive functional group of said
3 chelate.

1 **36.** The mutant antibody according to claim 35, wherein said reactive functional
2 group of said chelate is an acrylamido moiety.

1 **37.** The mutant antibody according to claim 25, wherein said metal chelate is a
2 polyaminocarboxylate chelate of a metal ion selected from the group consisting of transition metal
3 ions and lanthanide ions.

1 **38.** A pharmaceutical composition comprising the mutant antibody according to
2 claim 31, and a pharmaceutically acceptable carrier.

1 **42.** (Once amended) A mutant antibody comprising a reactive site not present in
2 the wild-type of said antibody and six complementarity determining regions (CDRs) that specifically
3 bind a metal chelate, wherein said reactive site is in a position proximate to or within said
4 complementarity-determining regions,
5 wherein said reactive site is the mutation and,
6 wherein said reactive site interacts with a reactive group selected from carboxyl
7 groups, hydroxyl groups, haloalkyl groups, dienophile groups, aldehyde groups, ketone groups,
8 sulfonyl halide groups, thiol groups, amine groups, sulfhydryl groups, alkene groups, and epoxide
9 groups.

1 **43.** (Once amended) A mutant antibody comprising a reactive site not present in
2 the wild-type of said antibody and six complementarity determining regions (CDRs) that recognize a
3 metal chelate comprising a reactive group or portions thereof, wherein said reactive site is in a
4 position proximate to or within said complementarity-determining region,
5 wherein said reactive group has complementary reactivity to said reactive site of said
6 antibody,
7 wherein said reactive site is the mutation, and
8 wherein said reactive group is selected from carboxyl groups, hydroxyl groups,
9 haloalkyl groups, dienophile groups, aldehyde groups, ketone groups, sulfonyl halide groups, thiol
10 groups, amine groups, sulfhydryl groups, alkene groups, and epoxide groups.

- 1 44. (New) The mutant antibody according to claim 1, wherein said mutant
- 2 antibody is a mutant of CHA255.